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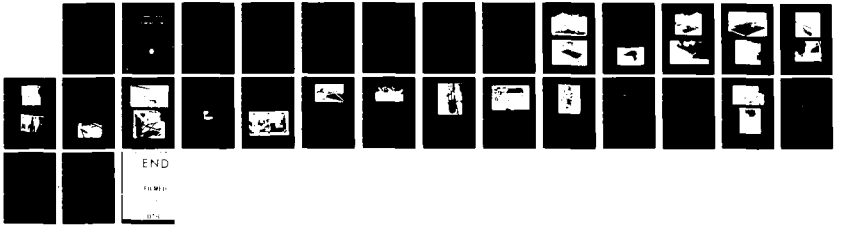

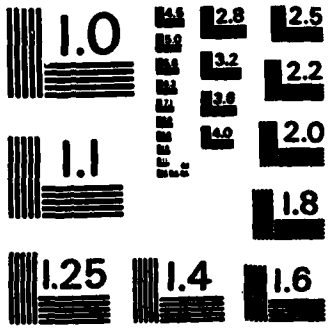

Review 5-82

AEROMEDICAL REVIEW

USAF MINOR SURGERY FIELD ASSEMBLY

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October 1982

USAF SCHOOL OF AEROSPACE MEDICINE
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NOTICES

This review was submitted by personnel of the Dental Investigation Service Branch, Clinical Sciences Division, USAF School of Aerospace Medicine, Aerospace Medical Division, AFSC, Brooks Air Force Base, Texas, under job order DSB38200.

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The Office of Public Affairs has reviewed this report, and it is releasable to the National Technical Information Service, where it will be available to the general public, including foreign nationals.

The report has been reviewed and is approved for publication.

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The history of surgical field equipment is reviewed. The complete description of a self-contained, portable, minor surgery field assembly is presented. The assembly is intended for use in mass casualty or contingency situations for preevacuation and premajor surgical or life-sustaining treatment.

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USAF MINOR SURGERY FIELD ASSEMBLY

HISTORY

The role of the dental officer in wartime has traditionally been limited to one of routine dental care. Dental problems were basically left untreated in the Continental Army. Officers could afford to go to one of the few dentists in the colonies or to their family physicians. More often than not, the majority of General George Washington's troops received their only "dental care" from the local blacksmith. In the wars with England in 1812 and Mexico in 1846, the requirement for dental care was essentially ignored.

The U.S. Civil War brought military dentistry to the fore, particularly in the Confederacy. The Confederate Army conscripted dentists largely because their troops could not afford dental care. Confederate dentists were encouraged to treat facial wounds as well as to care for teeth. These dental surgeons were entitled to rank and promotion privileges equal to those granted medical surgeons. In the Union Army, however, there was no organized corps of dental surgeons, primarily due to the opposition of President Abraham Lincoln's Surgeon General. This may be why one southerner noted that when Gen William Tecumseh Sherman's army came into Savannah,"there was enough work to employ 100 dentists for six months."

In 1882 the American Medical Association pointed out the need for dental surgeons in the U.S. Army, but the Surgeon General opposed the idea. In 1898 a bill backed by the National Dental Association for establishment of a U.S. Army Dental Corps was introduced in Congress but failed when the Surgeon General would not back it. A bill to provide one contract dentist for each 1000 troops was introduced in 1900, and although it did not pass, the bill finally had the support of the Surgeon General. In February 1901 a dental amendment to Senate Bill 4300 provided for the hiring of dental surgeons, and in accordance with the law, 30 "contract dentists" were appointed to the U.S. Army. It was not until 1911 that the Dental Corps was established by the U.S. Army, and in 1912 the first 10 officers were appointed to the U.S. Navy Dental Corps.

World War I found established Dental Corps in both the U.S. Army and U.S. Navy. In the Army, no provisions had been made for dental personnel or their supplies and equipment in the tables of organization, thus creating transportation problems which irritated division commanders and surgeons. Each dentist assigned to battle areas was issued campaign equipment which he carried at all times. This equipment included a dental engine and an emergency kit consisting of a few essential instruments, supplies, and medications. Shortly after the onset of World War I, horse-drawn dental wagons, intended to provide much needed transportation for the combat dentist, were purchased by donations from patriotic American dentists. The wagons sat at the port of New York for the entire war, however, due to the low shipping priority placed on them by the military.

Throughout World War I and the Korean and Vietnamese conflicts, military dentistry attempted to provide professional dental treatment for combat areas. This treatment has been routine dental care for the most part. These contributions were important; however, when it came to utilization of the dental officers for medical readiness, they were generally relegated to the manpower pool or litter-bearing teams. When these dental officers were pressed into medical treatment areas because of a shortage of physicians or because no one else was available, they performed their duties exceedingly well.

USAF MEDICAL READINESS

The USAF Surgeon General, Lt Gen Paul W. Meyers (1978-1982), placed tremendous emphasis on medical readiness. With the limited number of medical officers available to meet the requirements of a military conflict or national disaster, the dental officer has been tasked to play a larger role in the overall medical readiness program. There are over 1500 dental officers in the United States Air Force. As a result of their professional training, dental officers can be easily taught to provide care in areas beyond the "traditional" dental role. Dental officers are now being trained Air-Force-wide to augment medical officers as part of the USAF Medical Readiness Program.

CONCEPT OF OPERATION

The USAF Minor Surgery Field Assembly was developed by the USAF Dental Investigation Service, USAF School of Aerospace Medicine, to meet the needs of the Medical Readiness mission. The concept of operation is to (1) establish airways and stabilize respiration; (2) control hemorrhage; (3) care for minor injuries so the patient can return to duty (including emergency dental treatment necessary to return the patient to duty); and (4) prepare for evacuation those patients requiring treatment at the next echelon of care.

Comprehensive, definitive dental treatment is not programmed for field operations; only emergency dental care is planned, freeing the dental provider for the more urgent treatment of general casualties. The USAF Minor Surgery Field Assembly was developed with this concept of operation in mind. It is primarily intended to be used for life support by dentists, physicians, and nurses, and secondarily for use in dental treatment.

THE FIELD ASSEMBLY

The USAF Minor Surgery Field Assembly[1] (Fig. 1) is composed of 4 major components: (1) platform/chair; (2) light; (3) vacuum system, and (4) operating unit. The assembly is packed for storage and transport in two crates constructed of wood with carrying handles (Fig. 2). The larger crate (crate No. 1) contains the platform/chair and two operating stools. It is 6 feet long (183 cm), 2 1/2 feet wide (76 cm), 3 feet high (91 cm), and

[1] A-Dec Company, 2601 Crestview Drive, Newberg, OR 97132.

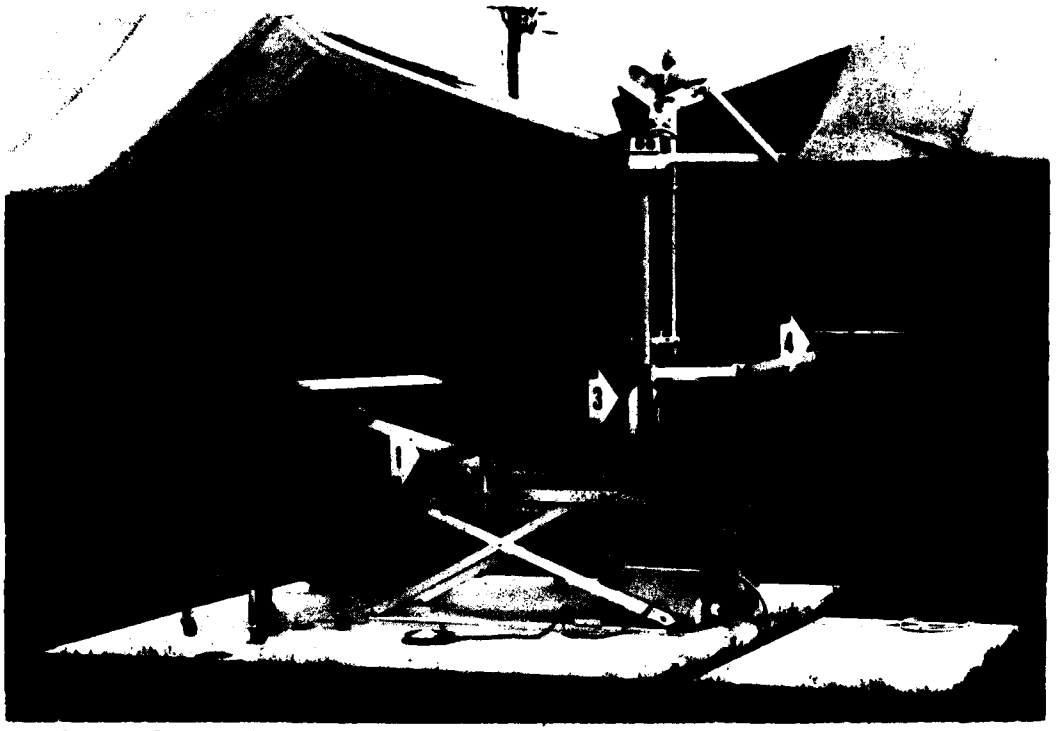

Figure 1. U.S. Air Force Minor Surgery Field Assembly showing (1) platform/chair, (2) light, (3) vacuum system, and (4) operating unit.

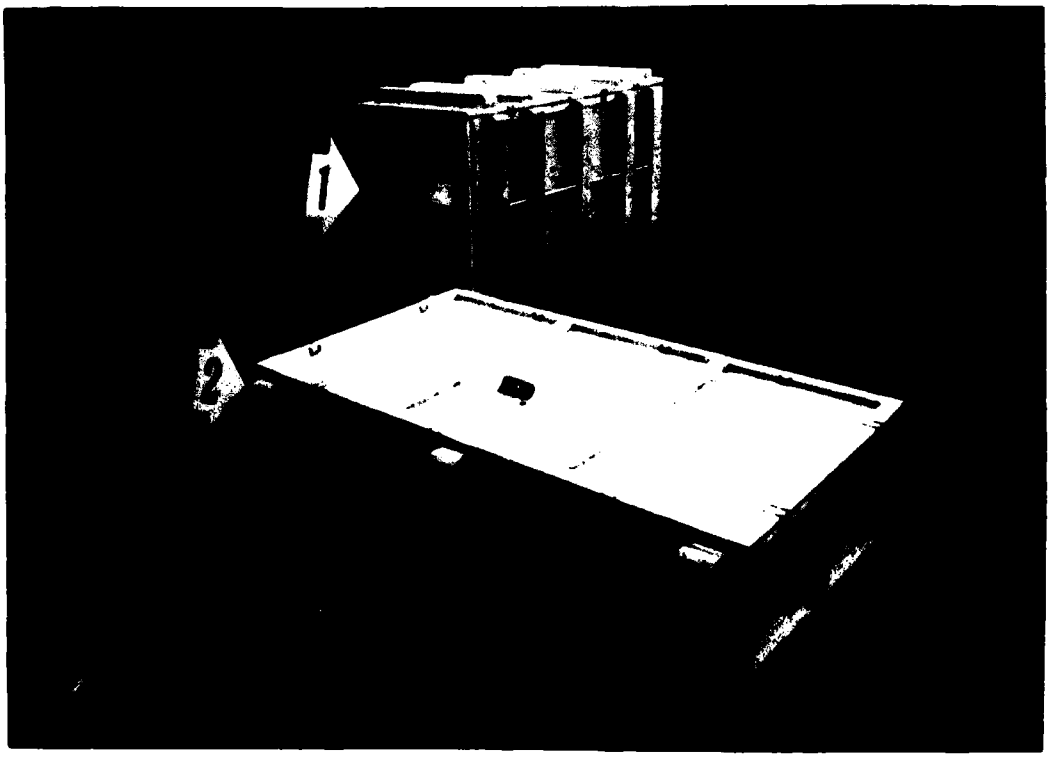

Figure 2. Storage and transport crates 1 and 2.

weighs 280 pounds (127 kg). The smaller crate (crate No. 2) contains the operating light, vacuum system, operating unit, detachable air-powered instruments, and supporting framework. It is 6 feet long (183 cm), 3 1/2 feet wide (107 cm), 1 foot high (30 cm), and weighs 200 pounds (91 kg). The tops of these crates are secured with steel C cleats which easily remove with a hammer, screwdriver, or other metal pry tool (Fig. 3). Other tools and the instruction manual necessary to open and set up the assembly are located in the utility center mounted on the platform/chair base and are easily accessible once the top of crate No. 1 is removed (see Fig. 4).

Crate No. 1

The platform/chair is mounted to the floor of the large crate. The bottom and two sides of the crate are connected by continuous hinges. The ends of the crate are secured by lag screws. When the ends are removed, the sides fold down and, with the bottom, provide a level nonskid floor for the assembly (Fig. 4). The crate top is secured to the base and sides using staple clamps (Fig. 5) to provide a total of 66 square feet of working surface (Fig. 6).

Platform/Chair

The platform/chair is designed to provide a stable, adjustable platform for litter-borne (Fig. 7) and ambulatory patients (Fig. 8). The framework is constructed of heavy-wall aluminum alloy rectangular cross-section box and angle section, tubing, bar stock, and steel rod pivot points (see Fig. 9). To insure indefinite storage and service life, no hydraulic or compressed gas cylinders are used. Height adjustment and seat-back tilt are accomplished by a side-mounted handcrank and a mechanical, spring-loaded friction lever activated mechanism on the seat-back support (Fig. 10). The handcrank activates a lead screw via a universal joint that links the scissor-leg cross-members under the seat (Fig. 11) and, by causing these members to move closer or further apart, affects raising and lowering of the platform/chair height.

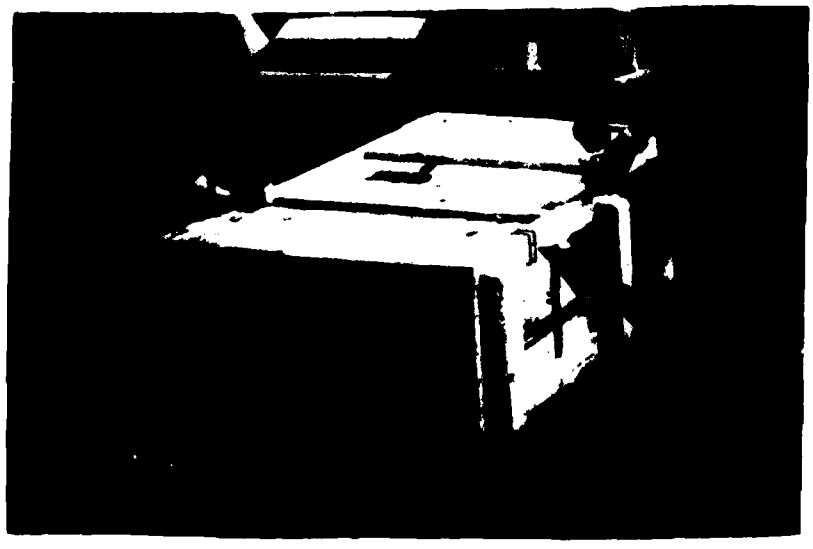

Figure 3. Steel C cleat removal.

Figure 4. Top of crate No. 1 removed, showing (1) utility center location and (2) side-bottom hinge.

Figure 5. Staple clamps used to join floor sections.

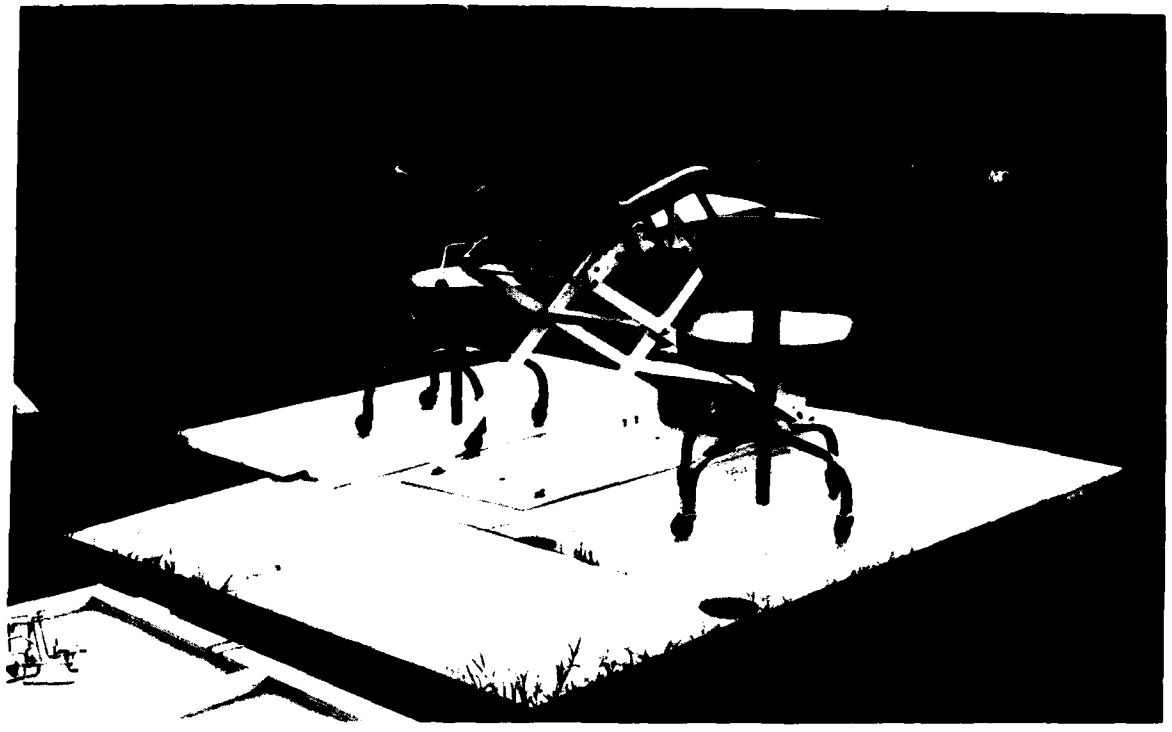

Figure 6. Assembled floor or working surface.

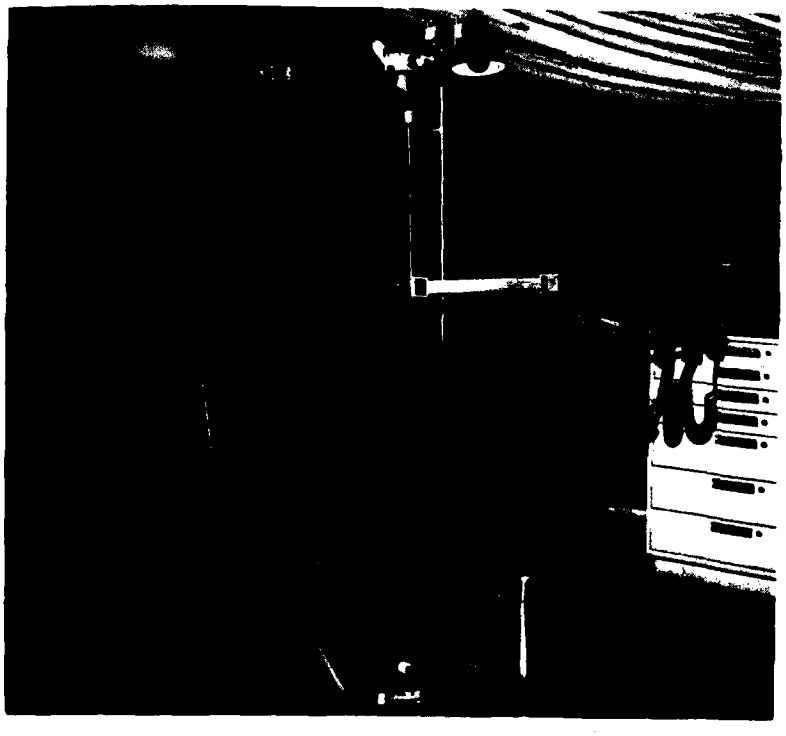

Figure 7. Litter platform configuration.

Figure 8. Ambulatory care configuration, showing pivot point.

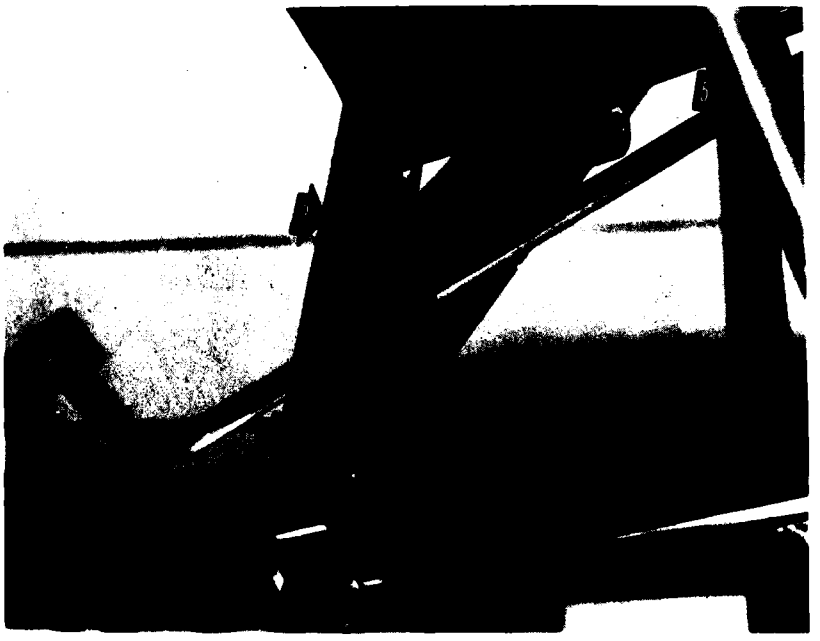

Figure 9. Platform/chair framework construction: (1) cross-section box, (2) angle section, (3) bar stock, (4) steel rod pivot points, and (5) tubing.

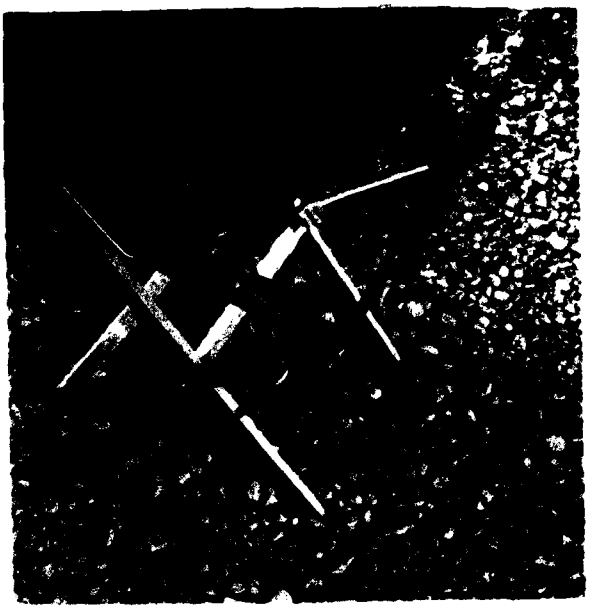

Figure 10. Platform/chair controls: (1) handcrank and (2) back support mechanism.

Figure 11. Height mechanism: (1) lead screw, (2) universal joint, (3) handcrank, and (4) scissor-leg crossmembers.

For stability, the platform/chair is attached to a 1/2-in. thick (1.3 cm), 18-in. wide (48 cm), 45-in. long (114 cm) aluminum alloy plate. Attachment is by pivot points at lower end of the front legs (Fig. 8). To allow the rear legs free movement over the baseplate during height adjustment, the legs are equipped at their lower ends with built-in wheels (Fig. 12).

The minimum seat height for the platform/chair is 22 inches (56 cm). The maximum height is 32 inches (81 cm); and at this height, with the backrest fully reclined, the horizontal attitude of the patient, whether litter-borne or ambulatory, is a Trendelenberg position.

To prevent the excursion of the rear (wheeled) legs off the back edge of the baseplate, the seat frame is equipped with removable safety pins (Fig. 13). When in place, the pins act as a stop for the rear scissor-leg crossmember, fixing the minimum seat height at 22 inches (56 cm), preventing the excursion of rear legs off the baseplate, and preventing total collapse of the platform/chair in the event of lifting-mechanism failure. These safety pins must be removed in order to lower the platform/chair to a packing/shipping position. The pins are equipped with tie cables to prevent loss. Under no circumstances should the crankhandle be used when the back (wheeled) legs are off the baseplate, since to do so will overstress the lifting mechanism when the leg wheels encounter the edge of the baseplate, resulting in failure of the universal joint components.

The platform/chair is furnished with height-adjustable armrests equipped with Velcro-retained straps for support needed during the administration of IV fluids (see Fig. 8). The seat, seat back, and removable legrest are metal-framed plywood padded with high-density polyurethane foam and covered with vinyl fabric. A removable U-shaped headrest, padded and covered with the same materials, is provided (Fig. 1). The mechanical, spring-loaded friction-lock mechanism for seat-back support (Fig. 14) is detachable at its top end by removal of a quick-connect/disconnect pin. This pin, like the safety pin discussed previously, is also cabled to prevent loss. Once disconnected, the seat back is folded forward and rests on the seat for packing.

Figure 12. Rear leg wheel.

Figure 13. Safety pin.

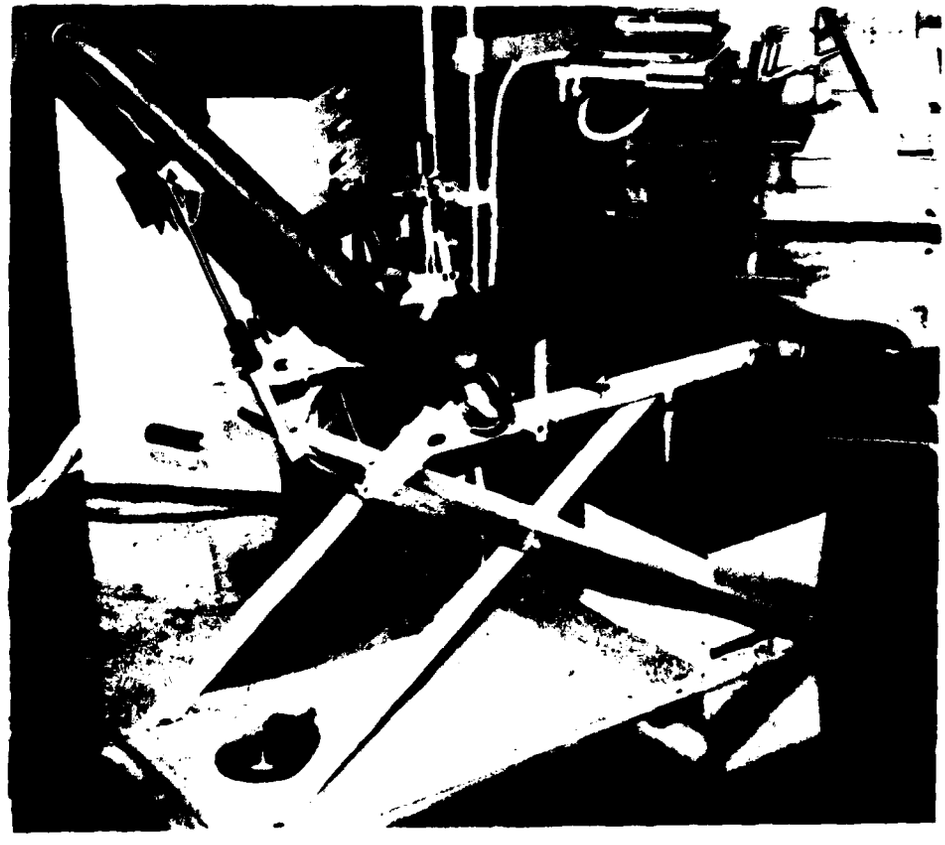

Figure 14. Rear quarter view of platform/chair. Arrow points to removable pin for backrest mechanism.

The width of the legrest, seat, and base of the seat back is 18 in. (46 cm). The 29 1/2-in. long (75 cm) seat back tapers to a width of 9 in. (23 cm) at its top. The total length of the platform/chair fully extended is 68 in. (173 cm), and it is 44 in. (112 cm) long and 12 in. (30 cm) high when it is folded for packing, disc unting the baseplate. Its weight without the baseplate is approximately 35 pounds (16 kg).

Operating Stools

The operating stools (Fig. 15) contained with the platform/chair in crate No. 1 are heavy-duty dental-laboratory-style mobile chairs. These stools have a tubular-steel base and flexible-steel back mechanism.

The stool base is equipped with ball-bearing swivel castors, spaced 15 in. (38 cm) center to center and 21 in. (53 cm) diagonally. The swivel seat is padded with bonded-foam latex and covered with vinyl fabric. The seat is 17 1/2 in. (44 cm) wide and 14 1/2 in. (37 cm) deep. The backrest, also padded and covered with vinyl fabric, is 13 in. (33 cm) wide and 8 in. (20 cm) high. It has a vertical height adjustment of 4 in. (10 cm) relative to the seat. Height adjustment for the seat relative to the floor is from 18 in. (46 cm) to 24 in. (61 cm). Some versions of these stools may have a foot ring attached to the top of the base legs.

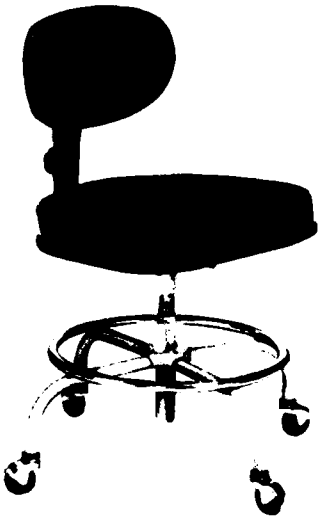

Figure 15. Operating stool.

Crate No. 2

Those components of the assembly most susceptible to transport damage are the lights, vacuum system, operating unit, and accessories. For this reason the interior of crate No. 2 is fitted with custom-made contour blocks, pads,

straps, and hooks to receive and secure these components (Fig. 16). It is necessary to remove only the top of this container by removing the steel C cleats. The crate top can be used as additional floor area for the assembly if needed.

Supporting Framework

The supporting framework for the lights, vacuum system, and operating unit is composed of a 24- x 4- x 1-in. (61- x 10- x 2.5-cm) mounting bracket, foot, and a 2-in. (5 cm) diam. post (Fig. 17), and consists of two 30-in. (76 cm) sections threaded together. The mounting bracket is attached to the platform/chair baseplate with four Allen socket bolts. The foot and post are at the outer end. The bracket may be mounted to extend from either side of the baseplate to accommodate left- or right-handed operators. The post is held vertically by a baseplate welded to the lower post section. Four attaching bolts run through the post base and mounting bracket and thread into tapped holes in the foot. The purpose of the foot is to compensate for the thickness of the platform/chair baseplate to prevent tipping by the weight of the post and post-borne components. After the supporting framework structure is erected, the remainder of the assembly components are installed in the order described in the assembly instructions, not in the order described in this text.

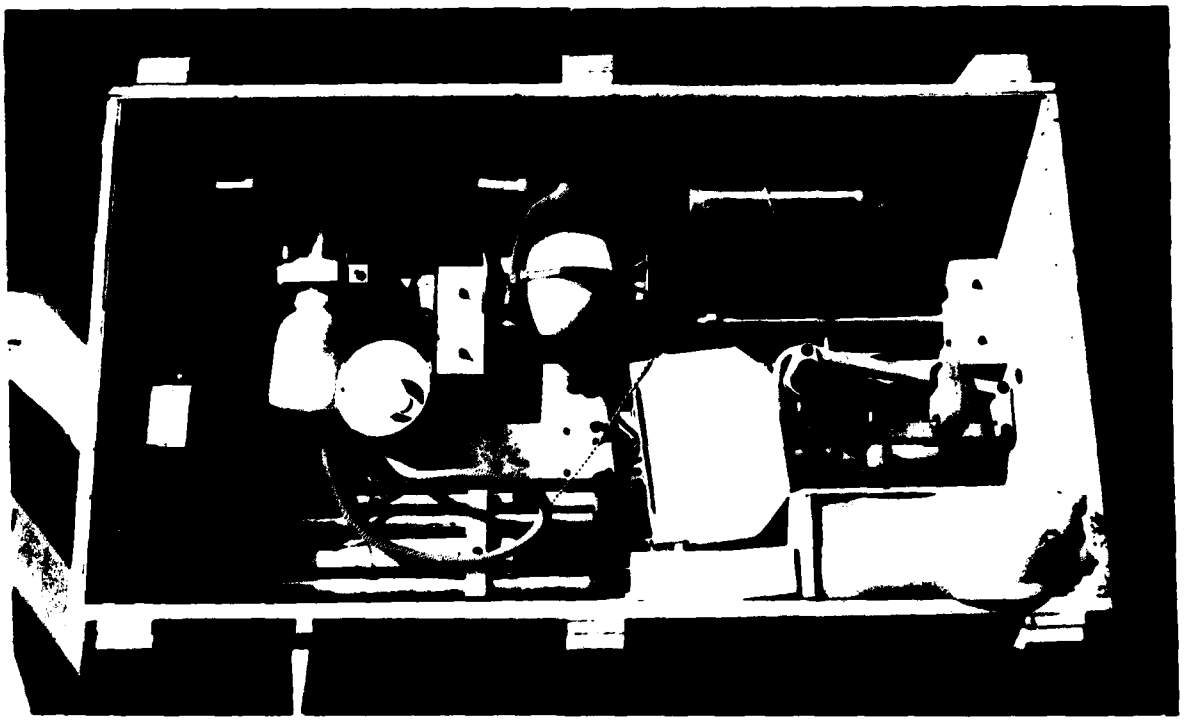

Figure 16. Crate No. 2, showing secured contents.

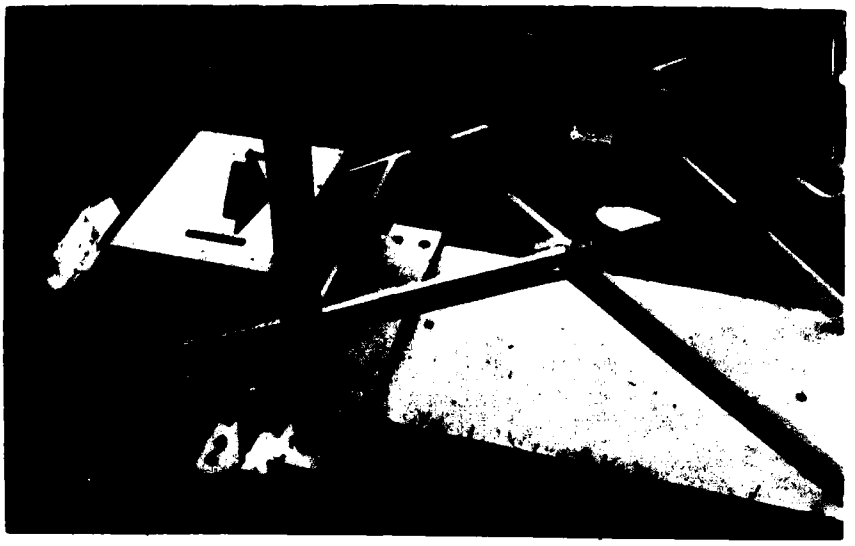

Figure 17. Supporting framework assembly: (1) mounting bracket, (2) foot, and (3) post.

Operating Light

The operating light for the USAF Minor Surgery Field Assembly is a commercially available Pelton and Crane Light Fantastic II (Fig. 18). The commercial product has been modified by the addition of dual duplex receptacles atop the transformer housing of the light arm as shown in Figure 18. These receptacles are powered by the power supply cable from the utility center to the operating light transformer.

The overall size of the light head is 7 in. (18 cm) wide by 9 in. (23 cm) high, with bilateral handles. The switch is located on the lower surface of the supporting yoke base. The reflector is curved glass with a dichroic coating on the front (concave) surface to reflect the visible light spectrum and pass the infrared component. The rear (convex) surface of the reflector is coated with a thin ceramic frit to diffuse the spectrum not reflected by the front face of the curved lense (reflector). Color temperature of the reflected light is 4000° Kelvin (K).

The light source is a tubular iodine-cycle, quartz-halogen lamp rated at 150 watts, 25 VAC.

At a focal distance of 27 in. (69 cm), a dimmer control effects an intensity range of 1500 to 2500 footcandles (16,146 to 26,910 lm/m^2). Set at maximum intensity, the following focal distances and target intensities were measured:

Distance		Intensity	
(in.)	(cm)	(footcandles)	(lm/m^2)
18	46	2900	31,216
24	61	2500	26,910
30	76	2000	21,528
36	91	1700	18,299

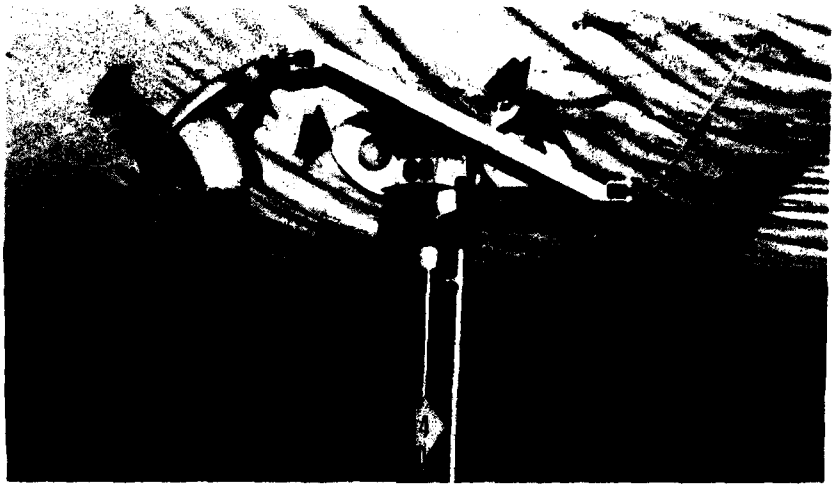

Figure 18. Light assembly: (1) operating light, (2) duplex receptacle, (3) supplemental lights, and (4) supplemental light post.

Within focal distance range of 24-36 in. (61-91 cm), the light pattern cast on the operating site measured approximately 3 in. (8 cm) by 8 in. (20 cm), with a feathered light-to-dark edge. The light arm is fully articulated to cover any operation site presented by a seated, prone, or litter-borne patient.

Ambient or supplemental-task lighting is provided by a pair of directionally adjustable open reflectors using incandescent bulbs. These bulbs are plastic coated to prevent shattering over the treatment team and operating site during use and are powered by the duplex receptacles atop the operating light transformer housing. The bulbs are supported on a height-adjustable auxiliary light pole that parallels the unit post and attaches to it via the clamp plate with which the surgical-vacuum system is suspended. The supplemental lights and their support posts are shown in Figure 18.

Vacuum System

The vacuum system assembly (Fig. 19) is a modification of the commercially available A-Dec Air Vacuum System (AVS). It is attached to the framework post with a C-clamp-type attachment (Fig. 20) which allows the system to be installed at any point along the post without disturbing other post-supported components. The vacuum assembly is supplied with one high-volume evacuation (HVE) hose and valve and one saliva-ejector hose and valve.

The main body of the system is a nickle-plated-brass canister housing an air-water separator serving the HVE and saliva-ejector air-water effluent. Instead of the drain hose for water and effluent used on the commercial device, this field system is equipped with a 1-quart shatterproof plastic bottle for effluent collection.

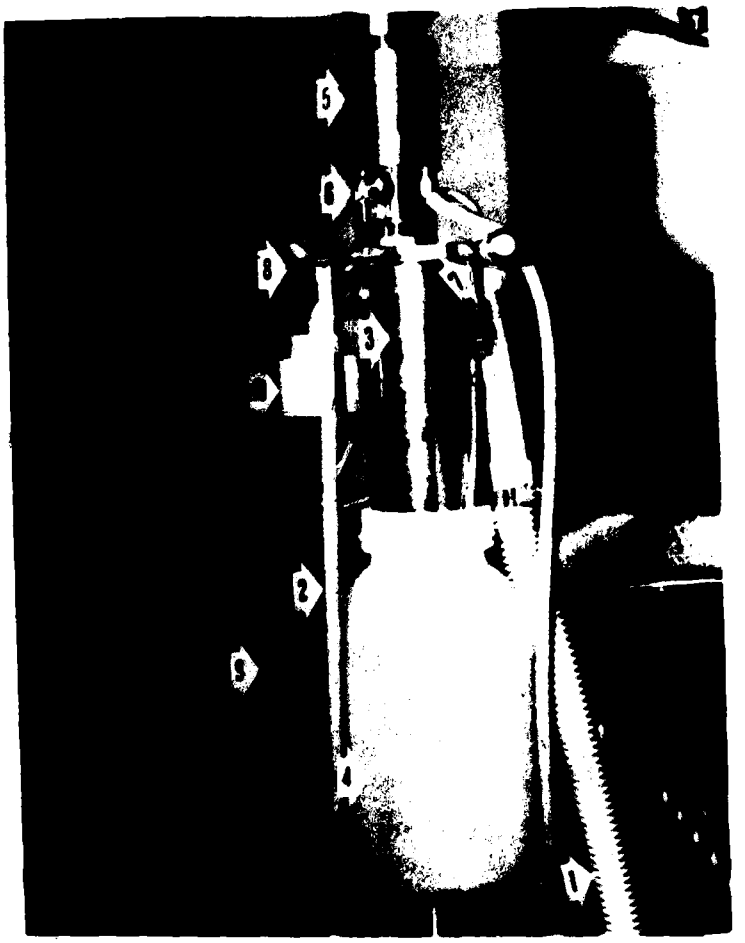

Figure 19. Vacuum system assembly: (1) HVE hose, (2) saliva-ejector hose, (3) separator canister, (4) effluent bottle, (5) saliva-ejector canister, (6) saliva-ejector on-off volume control, (7) HVE on-off volume control, (8) cover plate, (9) drive air line, and (10) exhaust-air outlet.

A cover plate is located at the top of the separator canister and serves as an attachment point for the framework post C clamp and as a mount for the manifold supplying drive air to the HVE hose. Vacuum for the HVE is developed in the valve or suction-tip carrier at the outer end of the hose. A small air line is routed inside the large HVE hose, and at the valve this line turns 180°, directing a stream of air through the large hose back toward the separator canister. This flow of air in the HVE hose causes negative pressure to develop at the HVE tip resulting in a clinically usable vacuum.

The saliva-ejector section of the vacuum system is a separate canister mounted on top of the cover plate (Fig. 19). Unlike the HVE portion of the system, vacuum for the saliva ejector is developed by an air venturi inside the small canister. This canister also contains a solids collector accessible by removal of the black plastic canister cover for cleaning. The air-water mixture is passed to the large main canister for separation and drainage into the effluent bottle. Each part of the vacuum system has a separate on-off volume control for drive air as well as an on-off control in each valve or handpiece.

Figure 20. Post-supported components: (1) operating unit, (2) vacuum system, (3) framework post, (4) C clamp for vacuum system, (5) unit umbilical, and (6) ring clamp and thumb bolt.

The main separator canister is equipped with filtered-exhaust-air outlet for separated air. The filter also serves as a silencer for the high-velocity exhaust. Minimum drive-air requirements for the vacuum system are 60 psi (4.2×10^4 kg/m^2) and 2.5 cfm (.0012 m^3/sec). Performance of the system is much more clinically acceptable when drive-air pressure is 80 psi (5.6×10^4 kg/m^2), drawing 3.0-3.5 cfm (.0014-.0017 m^3/sec).

Surgical tips for the vacuum system are supplied in 3 sizes: 1/8 in., 5/32 in., and 3/16 in. (.32, .4, and .48 cm). Tip bases are engineered to fit both the saliva ejector and HVE valves. The larger surgical tip, 3/16 in., and the HVE tip, 7/16 in. (1.1 cm), are used on the HVE hose and valve when higher volume, medium-to-low vacuum strength is needed for large wound debridement and evacuation of coolant or irrigation fluids. The smaller tips are used on the saliva-ejector hose and valve for more delicate surgical procedures requiring medium-to-high vacuum at low flow rates to prevent tearing of tissue tags and displacement of forming clots. Tips for the vacuum system are stored with the spare parts in the utility center. Most of the parts stored in the utility center are shown in Figure 21.

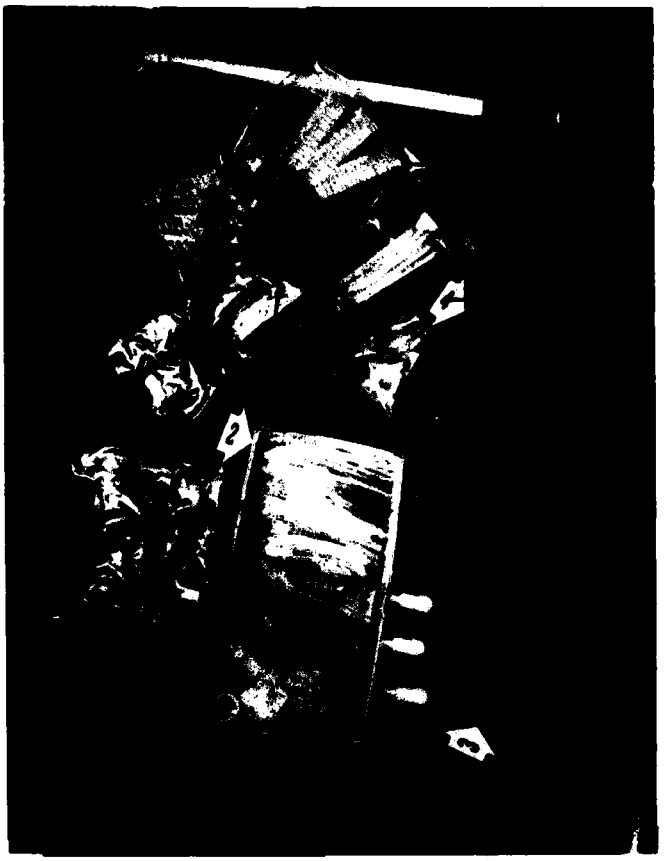

Figure 21. Items stored in the utility center: (1) cleaning brushes, (2) spare parts, (3) surgical tips, and (4) tools (end wrenches not shown).

Operating Unit

The operating Unit (Fig. 20) is a standard commercially available A-Dec 4213 Mini-Trol handpiece-control system for manual control of 3 dynamic instruments. The instrument holders are bar mounted across the front of the control enclosure. They are adjustable for vertical tilt and unlimited horizontal position within the scope of the mounting bar.

Adjustments for drive air, coolant air, and coolant water are located on the unit faceplate (see Fig. 22). All on-off volume controls, except those for drive-air-pressure adjustments, are equipped with knobs or toggle handles. Drive-air pressure is adjusted using a 3/32-in. long-shank hex wrench through the individual access holes in the unit faceplate (Fig. 22). The handpiece, or dynamic instrument, selection mode for the unit is manually adjusted by the rotary switch located on the right-hand end of the unit faceplate. An automatic selection system was not supplied due to the unusual and extreme conditions in which the unit may be used. The manual system involves fewer parts and represents a reduced maintenance problem potential.

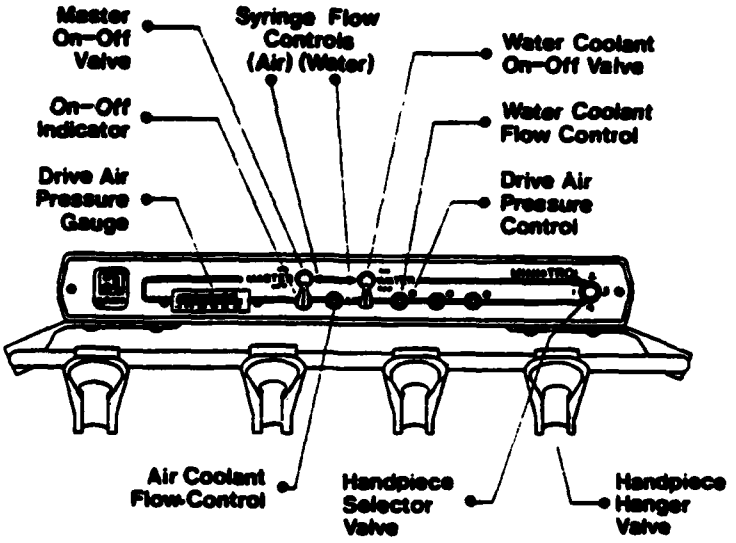

Figure 22. Operating unit controls.

The dynamic instruments supplied with the assembly and their drive-air pressures follow:

Instrument	Drive Pressure
A-Dec 5000 (high speed)	32 psi (2.25×10^4 kg/m^2)
Midwest Shorty (slow speed)	40 psi (2.8×10^4 kg/m^2)
Orbison (sonic scaler)	18 psi (1.27×10^4 kg/m^2)

An A-Dec 3-way (air-water-spray) syringe is supplied and is located on the mounting bar. All these instruments and the syringe can be field-repositioned to suit the operator, and they are equipped with coiled delivery hoses.

A tray holder is mounted above the control enclosure and accepts a tray 10 in. (25 cm) by 13 1/2 in. (34 cm) (maximum dimensions).

The foot control for the dynamic instruments is shown in Figure 14. It is the standard wet-dry disk type, with foot-operated toggle switch for on-off control of coolant water to the dynamic instruments. This switch precludes the control on the unit faceplate to prevent breaking the sterile procedure during operation.

Unit Delivery Arm--The operating unit is suspended from the framework post by an adjustable, counter-balanced, locking-arm assembly (Fig. 23). The arm has a horizontal reach of 31 inches (79 cm) and a vertical travel range of 12 inches (30 cm). A locking lever to maintain vertical height is located on the vertically adjustable segment of the arm assembly (Fig. 23). This segment attaches to the operating unit control center via a vertical pivot bolt. The opposite end of the arm (the horizontally displaceable segment) is attached to the framework post via a ring clamp and thumb bolt (Fig. 20).

During setup of the field assembly, after the framework post has been erected, it is necessary to slip the ring clamp of the delivery arm over the upper end of the post, then slide it down the post to the desired height. The ring clamp is then made secure by tightening the thumb bolt.

The umbilical trunk delivering air and water from the utility center to the operating unit is suspended by small rings under the delivery arm as shown in Figure 20.

Water Supply System--The water supply for the operating unit consists of a 3-gallon (11.4 liter) stainless-steel pressure vessel (Fig. 24). A 5-in. (13 cm) diam. opening at the top closure is the lever-activated-warping type, such as that of some small autoclaves and pressure cookers. A quick-connect/ disconnect manifold is mounted on the top flange of the container for attaching a pressurized air line and a water supply line, both connecting to the utility center.

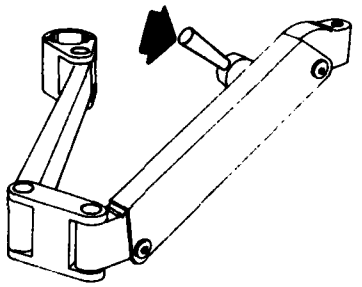

Figure 23. Unit delivery arm showing locking lever.

Utility Center

The utility center is mounted to the forward edge of the platform/chair baseplate (Fig. 24). The front panel of the enclosure contains a duplex receptacle supplying electrical power to the operating and supplemental lights; a 6-port umbilical connector to service the operating unit; 2 quick-connect/ disconnect fittings to supply regulated air pressure.

A single piece of aluminum sheet forms the top and ends of the utility center enclosure and is hinged for access to the top edge of the enclosure back (Fig. 25). Within the enclosure is the air-supply input line to the compressor, pneumatic master switch, air filter and regulator, distribution block, water supply input line, and electrical supply cable. Figure 26 is a simplified schematic outline of the receiving and distributing network linking the field assembly components.

The large utility center is also used to store accessory items, spare parts, and tools. Most of these items are identified in Figure 21. Not shown in this figure are the wrenches supplied to remove the ends of crate No. 1.

Figure 24. Forward edge of the platform/chair baseplate, showing (1) utility center and (2) water supply.

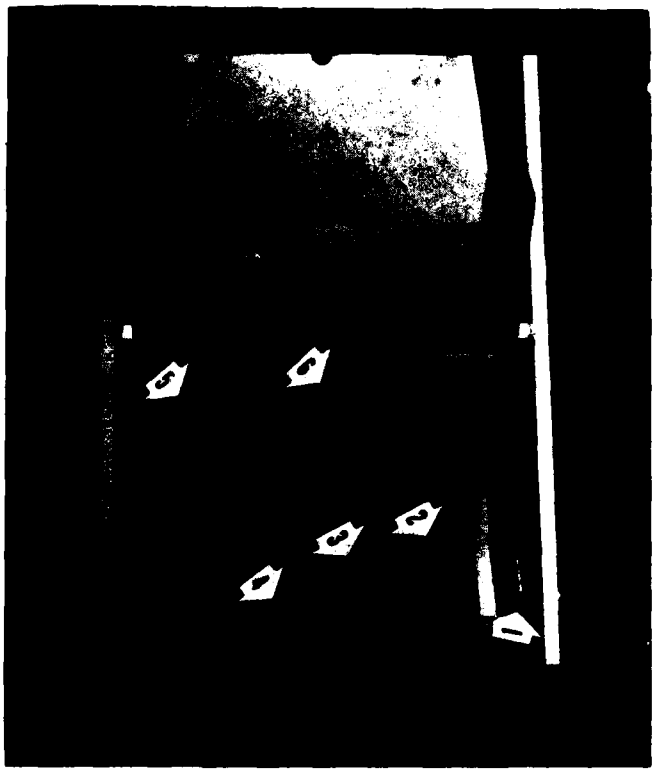

Figure 25. Utility center enclosure contents (shown with cover open): (1) air switch, (2) air filter, (3) air regulator, (4) manifold block, (5) spare parts and tools, and (6) manual and accessories.

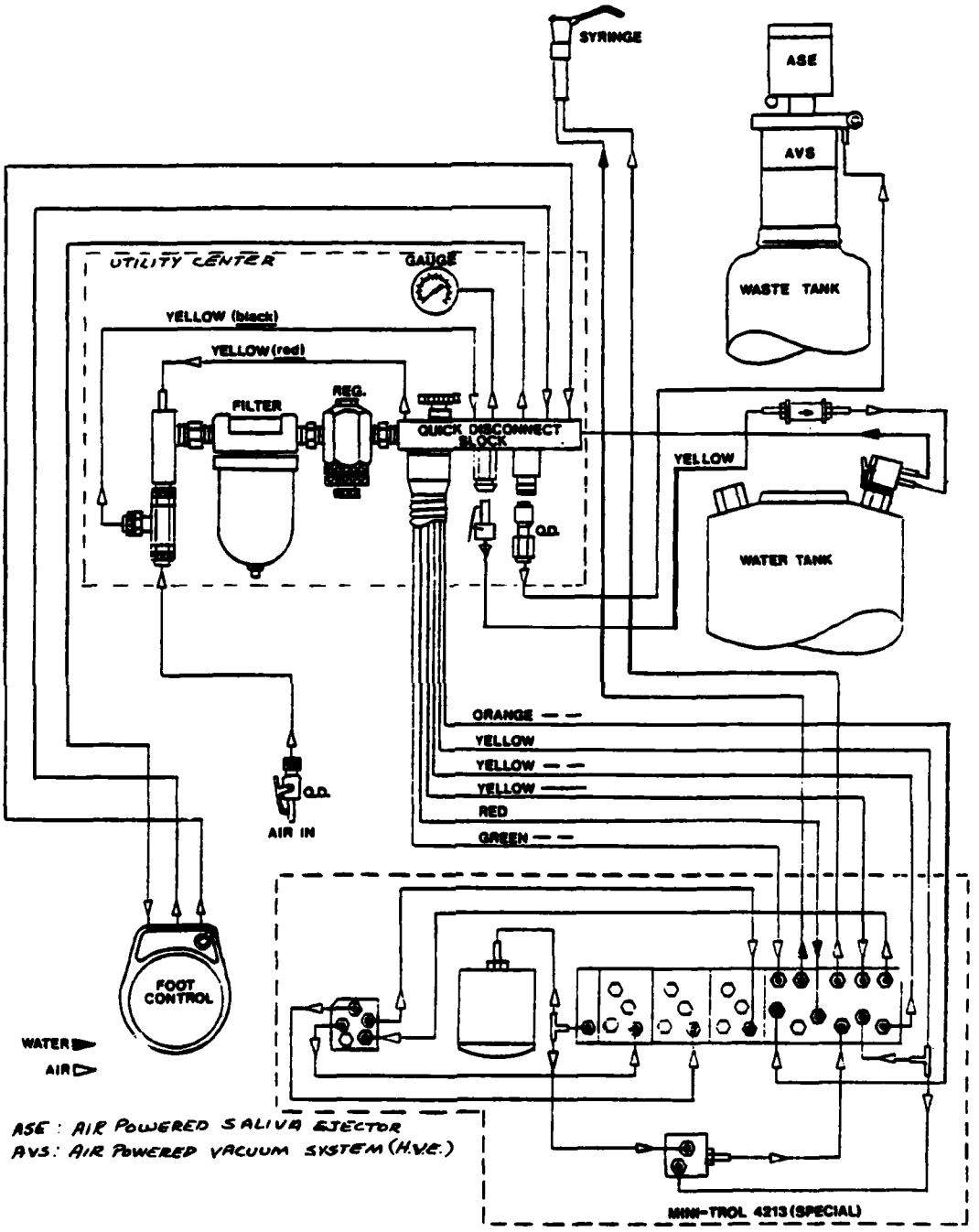

Figure 26. Field assembly schematic outline.

Electrical Compatibility

Each field assembly is supplied with a transformer used to receive 220 VAC electrical power from out-of-CONUS power sources. The transformer converts the 220 VAC input into 110 VAC to power the assembly utility center. Items powered by the utility center are not sensitive to the 50-Hz frequency of out-of-CONUS power sources.

Field Assembly Handpieces

Quantity	Model #	Nomenclature
*2	5000	A-Dec high-speed handpieces, 4 hole.
1	710000	Midwest Shorty 2-speed motor with straight attachment.
1	710070	Midwest Shorty contra-angle sheath.
1	720433	Midwest ball-bearing friction-grip head.
1	720406	Midwest ball-bearing latch-type head.

*The A-Dec 5000s will be replaced by American Midwest Quiet Air high-speed handpieces in later versions of the field assembly.

In addition to these major items, the assemblies have the additional supply and equipment items required to fulfill the specified mission requirements. These items range from surgical sutures and hemostats to dental restorative materials and burs.

Other Items of Equipment and Supplies

Following is a list of major items of equipment required for the Minor Surgery Field Assembly which are not packed in the two wooden packing crates.

Number	Item
1	A-6 air compressor, Air Techniques.
1	Heliodent 70 Portaray Field X-ray Unit, Siemans (see SAM-TR-82-11, available from USAFSAM/NGD)
2	Mobile dental instrument cabinets, Hamilton Industries.

Upon delivery of the initial order of Minor Surgery Field Assemblies to the U.S. Air Force, the only packaged, portable field compressors available through the Federal Supply Catalog were compressor-dehydrators, dental equipment, 6520-00-139-1246 and 6520-00-935-5486. The operating pressure ranges and/or output capacities for these compressors are insufficient for proper operation of the field assembly. As we write this publication, larger field compressors are being readied for delivery to the organizations responsible for the field assemblies. These compressors will have an operational range of 80-100 psi (on-off) and will deliver 6 CFM of oil- and moisture-free air through the operational pressure range. These compressors are presently identified by Air Force Medical Materiel Field Office C number 6520CE1DF00 and must be requested through that organization. The compressor power requirements are 220 VAC, single phase, 50-60 Hz.

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